

Leonardo da Vinci: flux, spirals and the aesthetics of destruction. (*)

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1. On water and rocks

We start with a drawing by Leonardo as examined by the celebrated scholar Carlo Pedretti in an essay that forms the first chapter of his *Leonardo: a study in chronology and style* (1973). The chapter is titled *The River* and opens with a drawing by Leonardo da Vinci: a landscape of the Arno River, the earliest drawing of the artist that we know, according to Pedretti, signed and dated 5, August, 1473.

Leonardo was 21 years old when he drew a landscape of rocks and trees on the foreground, opening towards the river valley below, framing the vista of the riverbed, with fields, hills and mountains in the distance. Earth, water and light, complementing each other, are the main elements or subjects in the drawing. As much as the waters of the river, the solid earth is also a mirror of light, as it is the vegetation itself: the foliage of the trees are rendered with short, rapid parallel lines (a Florentine graphic convention of the period, according to Pedretti) conveying the dynamic impression of wind on the vegetation and of light hitting moving branches. Checkered lines of perspective on the distant margin of the river appear to depict regularly partitioned, toiled fields, and a castle sitting on the elevated rock on the left on the viewer's side, also marks

the integrated human aspects of the landscape. The composition is structured in a circular movement: from left to right the edge line of the foreground terrain curves towards the center of the picture sketching a spiral form.

The total scene and total impression is economically rendered and beautifully expressed by way of the clarity and the energy of the young artist's lines. The play of lines and marks on the paper surface, the descriptive synthesis attained, the elevated and open perspective recall something of the graphic vision and graphic sensibility of oriental painting, as observed by some commentators¹. Preparatory lines under the final drawing may indicate an initial on site notation, later reworked in the studio. Is it an actual description of a specific place at a particular time of the day? It may appear so to our modern sensibility, and to our historically constructed concept of landscape art. Whether imagined or seen, spontaneously recorded, remembered or assembled in calculated form and manner, it bears the mark both of a intended objectivity of vision, the search for descriptive faithfulness to the experience of the visible world, and a type of personal vision and personal empathy with the natural world that to many critics and students² characterizes in fundamental ways the art of Leonardo da Vinci, in its many dimensions and aspects.

Real or imagined, it is in fact a familiar sight, as Pedretti confidently states: it is a view of the Tuscan landscape, it is indeed the Arno River, which is made present to us by the masterful visual rhetoric of Leonardo. This youthful drawing is therefore an appropriate introduction to the forms, subjects and effects of Leonardo's art and to the artist's mind.

For all its idyllic aspects, there is also a certain inner tension in the drawing belonging to the vigorous youthful manner of the artist and also to his aesthetic concept, that is, to an underlying, a given, all embracing

1 See Payne (1978)

2 See Brown (1998)

intensity and concentration of vision. We can state that, from the beginning, Leonardo is never content with mere surface description of the world of appearances, he must express the structural tensions at the core of reality, he must present in different ways, directly or indirectly, the powers that shape and govern the various figures of the world, aspect that will become more and more apparent and central in his artistic development. For Leonardo, form is indeed a dynamic concept and a dynamic reality, and this idea, I believe, is one of his central aesthetic as well as theoretical concepts, and the source of the impact of the art of Leonardo for the Renaissance. The linear and sculptural paradigm of Early Florentine Renaissance art (which will be later, rightly or wrongly considered, incorporated into the artistic ideology of "classicism" as such) is synthesized and transformed in the art of Leonardo as a vehicle of a concept of artistic form that will stress the "coming to be" as the proper dimension of reality, the inner dimension of the real, a concept uniting the representation and the knowledge of the visible world, and opening up vision and knowledge to the core elements of time and process in experience, in art as in science.

The river, giver of life, is also a great destructive power. Florentine chronicles of the 14th and 15th centuries narrate floods of the Arno, the calamities and destruction caused by untamed waters, as a kind of natural revenge or perhaps divine punishment upon the inhabitants of the land, as well as other strange or extraordinary, frightening and destructive weather related phenomena: heavy rains, dense fogs, mud-flows or mudslides, winds, tornadoes, and unusual weather occurrences that brought death and destruction, terror and sorrows to the land and the people.

In an early text related to studies of water, that Leonardo started in Milan around 1490, the artist describes the unique destructive powers of flood-waters in comparison to fire and other elements. By that time, observes Pedretti, the rivers of Lombardy had already been tamed by numerous waterworks and channels. Leonardo was, therefore, relying on memories of his Florentine years, his childhood and youth. As a child, Leonardo must have heard about and

also could have witnessed the results of floods and related natural disasters, as, for instance, the Arno flood of 1466 narrated by Machiavelli in his History of Florence.

Born in Anchiano, in the outskirts of the village of Vinci, Leonardo spent most of his childhood in or around the rural property of his paternal relatives in the company of his mother, a peasant woman³, a woman of a inferior social standing than his father, who was the son and grandson of a lineage of successful, and relatively well to do, Florentine notaries. Leonardo was a "natural child" in the sense of his social standing as an illegitimate child, and also in the sense of his closeness to the land and to the rhythms of nature and the natural world in general. Contemporary narratives and biographic materials present Leonardo as a vegetarian, a lover of animals, an observer and also at times a kind of "master" of nature and of natural forces and processes, closer to her "secrets" than any other man in his time.

Two main elements or themes in his art can therefore be related to his original soil and familial condition: the natural world and, if we are allowed to rely on Freud's interrogations⁴, the archetypal feminine figure. On one hand, there is in Leonardo a deep empathy with nature, its various elements and processes, that, according to the specialists, set his art apart from the purely constructed or conceptualized naturalism of many of his contemporaries; on the other, Leonardo displays a scientific-philosophical objectivity or detachment of outlook, that was also a trait belonging to the personality and social manners of the artist, according to contemporary narratives (narratives where the mythical element expresses in its own way, the

3 We adopt here the most common representation in the literature. In fact, there is a lack of documentary evidence regarding the life and circumstances of Leonardo's mother. Some writers in the past, on different grounds - equally inconclusive - have objected to this characterization. For a modern compilation of documents and contemporary accounts on the life of Leonardo see Villata, E. (1999)

4 See Freud (1957)

impact of the subject upon his entourage, associates, fellows and on his time in general) - for instance, his "sprezzatura" (adopting Castiglione's term) or his *nonchalance*. That is: a highly original and thoroughly individualized self-presentation and being-with-others that has nothing of the merely calculated but it is indeed, at the same time, a mode of being and a style of behavior, valued and recognized by its profound spontaneity, and having its sources, in the case of Leonardo, in individual psychological structures as well as in the cultural soil of the Renaissance revival or remaking of Greek ideas, including scientific, philosophical and ethical reflection and ideals of individual freedom and self-mastery such as, for instance, in Stoicism and Epicureanism. In a time of powerful individualities, the historical soil of the modern figure of the individual, Leonardo impressed his contemporaries as an original among originals.

2. Of women, movement and generation

Walter Pater, in his famous, imaginative and richly suggestive essay on Leonardo da Vinci⁵ (published in 1873), wrote: "Two ideas were especially fixed in him, as reflexes of things that had touched his brain in childhood beyond the measure of other impressions - the smiling of women and the motion of great waters".

Carlo Pedretti's essay partially echoes Pater's idea when he relates the study of the powers of nature, of the movement of waters, to the growing energy in form and manner in Leonardo's drawings of the human figure, on the example of the Leda sketches from around 1504, reflecting the artist's quest for the comprehension and the expression of movement and energy in nature and in the "human machine", that is, in the movement of the body as an expression of the *anima*, soul or spirit, the source of movement in nature and in man. Body and spirit considered, in the heritage of the Ancient Greek (Hellenistic) philosophical materialism, in their unity, and not simply in dualistic opposition. In fact, the mechanical science of Leonardo, the study of movement, has its sources partially in Medieval science, which filtered the

5 See Pater (2010)

heritage of Antiquity, but also in the renewed knowledge of classical sources characteristic of the Renaissance which, going beyond the limitations of Medieval views, pointed the way towards a fresh vision of knowledge and of reality. Renaissance Humanism, on the basis of an enlarged and critical historical understanding of the culture of the past and, consequently, on the culture of the present, of tradition and renovation, of the nature of time and of human time, opened the way to new forms of knowledge. In such a renewed intellectual context emerged a new reliance on experimentation and on the senses aiding and being aided by reason at the dawn of modern science.

Leonardo, the experimenter and scientific investigator, obstinate and indefatigable in spite of the limitations of his historical circumstances and intellectual heritage, takes the road that will lead to the future of science, to modern science as established by the new role of experimentation, the questioning of real processes, in objectively determining the worth or worthlessness of proposed theoretical constructs. Further still, we can observe in our own time the universal reliance on computers and on digital processing, the technological mediation of computer science in scientific knowledge and research as well as in our everyday vital processes. Computer science and computer programming have been called by specialists a true "science of error" where desired results can not be simply anticipated but must be produced in practice against the unexpected "resistances" of all real processes, technological and natural. Here we encounter again the spirit of Leonardo, wrestling and extracting knowledge from error and ignorance, dialectically asserting the limits of human knowledge as the very basis of the growth of new knowledge: error as the very "condition" or "constitutive moment" in the production of knowledge.

Considering the anticipations of new forms and a new artistic sensibility in the passage between the Quattrocento and the Cinquecento (the 1400s and the 1500s) Pedretti points out the departures from the somewhat abstract tranquility of the Early Florentine manner in the landscape depictions in the dramatic fantasies of primitivism, theoretically grounded on Lucretius and ancient Epicurean philosophy, by Piero de Cosimo (as

analyzed by Panofsky⁶). In the same period, Leonardo's studies of the human figure further developed the Classic-Hellenistic idea of the *contrapposto* into a new dynamic spatial concept of the figure, as both source and point of convergence of energy fluxes. Here emerges the figure of Leda, states Pedretti: "classically built up in space along a spiral line", a true *figura serpentinata* in anticipation or as an early source of what will become the essential Mannerist representation of the restless human body in an unstable spatial frame.

The kneeling or rather, the rising Leda has her feet over spiral leaves that transmit their movements to her body, depicted in a *contrapposto* play of forces and balances, with the serpentine figure of Jupiter - Swan, on one side, and the fruits of their union, the youngsters coming out of their generative shells, on the other. Leda is a generative symbol, the vision of fertile nature.

3. The Spiral

The spiral, Pedretti notes, appears in Leonardo's machine projects and in his studies of water movements. We can say that the spiral is indeed a structural and generative form that, as such, translates Leonardo's thinking into a pictorial idea or "concrete symbol", that is, a direct disclosure of the unmediated, essential unity of concept and expression, and the visual embodiment of the unity of the forces and processes that shape the world of nature and the human world. The spiral is a kind of unifying visible principle of movement depicting the universal flow and exchanges of energy, expressing, as in the Leda sketches, the communication between nature's beings and elements, the analogies between the human body and the body of nature, and the humanly mediated transitions from microcosm to macrocosm.

The reversions and distinctions of speed and directions within the spiral are a kind of emblem of the opposing forces at work in nature and structuring reality,

6 See Panofsky (1962)

the figure of a universal dialectics, the play of opposites of which the examples abound in Leonardo's drawings and thinking, in many different forms and aspects: generation and destruction, youth and old age, beauty and the grotesque, etc. A dialectic vision based on the recognition of the independent forces of nature, of a given, immanently structured universe, of *fortuna*, fate or destiny, understood as the objective course of reality, independent of human wishes or expectations. At the same time, the knowledge of the ways of the world, of reality as it is in itself, leads not to passivity or *quietism* but to action, as a challenge to human will and to human ingenuity. It leads to an affirmation of the will embodied in the technological drive, the will to technology in Leonardo as a will to transform reality, the hope or the confidence on the power of knowledge, science and technology, to counter reality's unwanted or adverse effects on humans, and create or recreate a world were humanity, by exercising the freedom that comes with knowledge - a subjective freedom from the inherent uncertainties and illusions of the human mind and heart, and an objective freedom of effective, efficient action - can finally face its destiny as an act of will, what we may call the *desire of the real* or *amor fati*.

4. On Art and Bad Weather

In his mid 50s, while living and working in Milan, Leonardo ascends the Alps and records in writing and drawings his experiences. One such drawing is the view of an Alpine valley with an approaching storm. We can relate this work to elements in the early landscape of the Arno: a similar circular arrangement of the composition leading the eye into the distance, an elevated view of the land, the clarity of the vista. Leonardo's vision has matured in the same objective path: nature is portrayed on its own. And again, whether directly recorded or composed, the work bears the marks of experience, that is of the unity of imagination and knowledge in Leonardo.

The description of the approaching storm is here a kind of musical prelude or overture leading later to the

representation of the power of the elements in the series known as the *Deluge* drawings: pictures of natural power unleashed, a presentation of the forces of destruction in nature with their aesthetic appeal, expressive impact and yet with also an analytic element, a structural vision proper to Leonardo - even at his most intensely expressive moment, the artist never loses sight of the knowledge that resides in the forms of his art, that is, the vision of the artist belongs at the same time to the world of imagination, a projective or anticipatory capacity, and to the world of real knowledge, without which true art would not be possible: art is indeed a form of knowledge, the embodiment of vision, the most theoretical of the senses. The art of painting is knowledge itself made visible. In bad weather we have a kind of figuration of the dance of the atoms. Meteorology is the entrance hall to Cosmology. The painter is master of space and of time.

5. The Deluge Drawings: the aesthetics of destruction.

Linked to Leonardo's scientific studies of water and the elements, of the movements of water and air, the representation and narrative of floods and related weather occurrences (either seen or imagined), the destructive as well as the creative aspects of nature, the forces of nature and the studies of energy, these drawings have impressed and intrigued scholars and amateurs since they were made available by the publication of Leonardo's manuscripts, from the 19th century on.

The group of works known as the "*Deluge drawings*" represents, according to the critics, perhaps the most evident or the most accomplished expression of the unity of art and science, of knowledge and imagination in the art of Leonardo. This is how Kenneth Clark⁷ characterizes these drawings. At the same time, he relates these figurations of the destructive powers of the elements to millennial and mystical currents of the 1500s. In Kenneth Clark's well

7 See Clark (1959)

know study of landscape in art⁸ , Leonardo's series is examined in the chapter devoted to fantastic landscapes (in contrast to the factual landscape and the symbolic landscape of the previous chapters). For Kenneth Clark, Leonardo's *Deluge* series are works of imagination, fantastic visions of natural and cosmic destruction that, as such, have a primarily psychological dimension related to the artist's inner life expressed in symbols that belong to the cultural universe of his time, marked by religious concepts and beliefs. In fact, to Clark, the scientific visions of Leonardo are indeed secondary or subordinated to the artist's imagination, the source of his search for knowledge is located in his artistic interests and his will to form. The rhythmic movements of water, for instance, is what fascinates Leonardo at first, leading subsequently to his scientific researches on hydrology and the mechanics of fluids, states Clark. The same perhaps can be said of rock patterns, rock formations and mountains. In the *Mona Lisa* and in the *Saint Anne* paintings, the background of mountains and earth formations are to Clark, imaginative constructions of a specific kind in Leonardo: they are clearly works of imagination on the basis, however, of a complete and objective knowledge of the elements depicted. As Zubov observed: "In Western Europe, Leonardo was the first to climb mountains for scientific purposes. As a painter he was exceptionally sensitive to the beauty of mountain landscape⁹."

In the *Mona Lisa* as in the *Saint Anne* , the landscape is a kind of ancestral vision, the world before human presence, a time before time, the vision of geological eras that was also part of Leonardo's original concepts in his geological studies and research, his observations of the exchanges between the flux of waters and the flux of matter, the slow and yet continuous formation of mountains, canyons, valleys, from the actions of water, rain, rivers and oceans, the exchanges between the solid and fluid elements as water transports and deposits earth and earth accumulates resulting in the continuous renewal of the landscape in a long term and incessant process, slow, cumulative but also , from time to time, resulting in

8 Clark, K. (1976)

9 Zubov (1996) p.248

sudden and catastrophic changes.

In the *Deluge drawings*, the view of nature has changed, states Clark, from the depiction of an independent nature to the description of the powers of nature unleashed upon humanity, as a kind of revenge of the natural world against the sins of mankind. There is here, according to Clark, something of a mystical, prophetic tone that relates these drawings to the times and to contemporary manifestations of apocalyptic visions and fears around the 1500s. As an example of the *zeitgeist*, Clark refers to the drawing of an apocalyptic dream by Durer in 1525 where the German artist recorded his nightmare vision of great waters falling from heaven with terrifying thunder and high winds.

Clark recognizes that the vision of destruction in Leonardo has a different expression from the symbolic language and the more obscure mood and atmosphere of the medieval apocalypse and its continuous northern reverberations, such as in Durer. In the series of Deluge drawings Leonardo display all his knowledge on geology and hydrodynamics, and yet, to Clark, these unique works represent the passage from the Medieval to the Modern frame of mind in all of its more complex, conflictive and anxious aspects: the imaginative Gothic elements, that Clark identifies in various works of Leonardo, fused with the optical realism and the analytic vision of the moderns that defined the Renaissance.

Clark's observation echoes his characterization of the important anti-classic elements in Leonardo's works. However, from a different perspective, we can point out the proper classic sources that can account for the subject, as well as for the philosophical meaning of the series and related works in terms of a underlying unity of form, meaning and function. And one of the main sources would be the discovery and publication in late Quattrocento of the manuscript of *De Rerum Natura* of Lucretius, a compendium of the teachings of Epicurus, and its immediate resonance and numerous editions in the Renaissance¹⁰.

10 A colorful narrative of Poggio Bracciolini's

No ancient philosopher was more venerated in Greco-Roman times and more reviled since that time than Epicurus, wrote a modern specialist¹¹. The core teaching of Epicurus consisted on the denial of the gods interference on human affairs, the denial of "life after death", that is, Epicurus denied the immortality of the soul and proposed the vision of nature as the proper and sole domain of human life, affirming the value of the natural explanation of reality and of human experience. Epicurus aimed at banishing the fear of death and the fear of the gods from human consciousness and to make humanity, reconciled with itself and the world of nature, at home in this finite (immanent) and infinitely changing world. The autonomy of the world was mirrored in the autonomy of man: the doctrine of Epicurus was a philosophy of personal freedom, self-knowledge and self mastery as expressions of the dignity of the human creature, enjoying life through acceptance of destiny, not as passive sufferer but as an active participant in the universal, and at times unpredictable, movement of matter. The philosophy of Epicurus presents a unity of epistemology , as a critical theory of knowledge, of metaphysics, as the rational disclosure of the nature of reality, and of ethics as the reflection on the conduct proper to humanity aiming at happiness and the enjoyment of life by way of true knowledge.

The impact of *De Rerum Natura* in the Renaissance can be also ascertained by its condemnation by the Church, as the teaching of Epicurus, since the earliest times, was met with opposition, abuse, hostility, willful misrepresentations and interested distortions. And as with Epicurus ideas, *De Rerum Natura*, universally acclaimed by its high aesthetic quality of language and poetic invention, exerted both an acknowledge and also, or perhaps mostly, a kind of "subterranean" influence in the culture, the literature and the arts of the Renaissance. In the visual arts we could cite, for instance, more or less explicit Lucretian themes in Boticelli and in Georgione, to

discovery or rediscovery of the manuscript of *De Rerum Natura* in the Renaissance is presented in The Swerve by Stephen Greenblatt. See Greenblatt, S. (2011)

name two great artists. Besides the implicit as well explicit references to *De Rerum Natura* in Leonardo's manuscript and works, and specifically in the *Deluge* series that according to recent scholarship¹², refers also to the narrative of the formation of the world by the play of atoms and voids in Lucretius atomistic views, as well as the meteorological teachings and descriptions in Lucretius' poem related to the physics and the cosmology of Epicurus, the structuring of the universe into sub lunar and lunar or super-lunar domains, and the universal unity of the forces and processes of nature.

In Leonardo's *Deluge* series the hidden forces, or fluxes of energy that structure reality come progressively to the fore. As we observed previously, the expressive element and the analytic dimension of Leonardo's vision end up by balancing each other or fusing together. Here, the objective vision has its corresponding subjective meaning in the contemplation of the violent movement of waters and air that display the intensified strife at the core of reality. The result, as in Lucretius, is not the fear of destruction but to conquer fear with lucidity by way of knowledge and of the related aesthetic experience of the many worlds being born and disappearing in the ceaseless movement of universal forces and the universal flux of reality. For the power of nature is also our power, and the ends of nature our ends. Art becomes one main element in the conquest of self and of life. As Epicurus stated, resolutely banishing the fear of death from human affairs: where we are death is not, where death is we are not.

6. On an ancient new science

Throughout the centuries, the Epicurean and atomistic science of Lucretius in *De Rerum Natura* has been considered rather negatively as a type of fantasy of a man of letters and imaginative writer. A central Lucretian concept is that of the *clinamen*, a sudden deviation from the straight path

¹² For instance: Beretta, M. Leonardo and Lucretius (2010). Also the thematic review by Versiero, M. (2012) - I diluvi e le profezie - Disegni di Leonardo dal Codice Atlantico

that occurs at "uncertain time and uncertain place" and interrupts the vertical and parallel fall of the atoms generating the creative vortex and turbulences at the origin of the elements and the universe. In the development of modern science, for instance, the established models of Cartesian and Newtonian science could apparently ignore the Lucretian dance of the atoms with its sudden *declinations*, its flows and turbulences not amenable, like the weather itself, to a science of predictable and more or less linear processes. In the late 20th century, Michel Serres remarked that the new scientific paradigm that emerged from post-Newtonian science, from Relativity, Quantum Theory and also from Thermodynamics, the study of energy flows and of entropic processes, challenged the common views of science and allowed for a new type of science of the "indeterminate", alongside the established models of causality.

In his book *The Birth of Physics* (original French edition: 1977), Michel Serres reconsiders historically and epistemologically the Epicurean science of Lucretius in the light of our own present experience of the transformations or the mutations of scientific knowledge and scientific world-views. "Lucretian physics, states Michel Serres, is modeled on a mechanics of flows (...) The physics of Lucretius is a hydraulics¹³" Its historical foundation or anticipation can be located in the works of Archimedes, the sage, the scientist, the technologist, the "master of raising waters", of dynamic equilibrium, of fluxes and flows. The Romans, masters of the Mediterranean sea, where also masters of the movements of waters disclosed in the knowledge of their architects who built aqueducts, monumental baths, urban water systems, etc. The Mediterranean basin, observes Michel Serres, lacks water: power was therefore predicated on the control of the movements of water. As with Archimedes and Lucretius in Antiquity, so with Leonardo and his studies on the movement of water in the Renaissance. The science of the Renaissance is in fact, states Michel Serres, in some fundamental ways a revival of classical scientific knowledge. And beyond the Renaissance and the beginnings of our scientific tradition, a course leads to a general science of fluxes and flows of energy: from the early studies of liquids to the study of heat and to the investigation on the central processes of

13 Serres (2000) p. 82

dissipation of energy. To thermodynamics, in the passage between the 19th and the 20th century, and from there to a contemporary science of open systems and entropy in the works, for instance, of Prigogine, to name one contemporary scientist and author, among others, who focus on a "new order" of the universe and a new order of science¹⁴.

The model of science emerging from the scientific revolutions of the 20th century, as considered by Serres, allows for a multidimensional and dynamic view of the history of science: in dialog with culture and the arts, rooted in the soil of culture and in cultural experiences, in evolving rational as well as in imaginative processes, in proximity to the senses, phenomenologically considered, that is to matter and the body, in recurrent exchanges between structured and imaginative ways of knowledge and practical and symbolic modes of world-making. The new context allows for a new reading of Epicurean science and of the Roman author's concepts: an ancient science meets the new, enlarging our perspectives on both time and knowledge. And here again, Leonardo's scientific investigations can be considered a link in a rich and extended history bridging ancient and new visions and knowledge. A fundamental intuition on the inner nature of classical wisdom and classical art, historically rooted on the epochal transformations of the Renaissance, is one of the distinctive marks of Leonardo's scientific and artistic quest.

7. The Renaissance beyond itself

Kenneth Clark's observations about the classic and anti-classic elements in Leonardo's aesthetics considers the heritage or the memory of Gothic Art as an active component in Leonardo's imagination, in relation and also in contrast to the formative dimension of the new Renaissance classicism (and Leonardo's contribution to it). It points therefore to the past as imaginative source. Relating the matter equally to his theoretical- scientific views and activities, we can also point out the elements of anticipation, of future effects and results, characterizing the originality of his artistic vision and accomplishments.

14 Prigogine ,I. and Stengers, I. (1984)

Leonardo's innovative *sfumato* technique (of great impact for subsequent developments of the art of painting) is not just a practical procedure, but in itself already a new substantial aesthetic concept and artistic point of view, it recasts the structural elements of Early Renaissance classicism into living, pulsating forms - the transitions of light upon surfaces, and light itself as energy, as the living context of form and vision, translates a movable, dynamic universe of communicative flows by sight, touch and movement. The principle of movement is called *anima* by Leonardo, the soul or spirit that animates the human body as it animates the body of the world. The "spirit" (an old term for an emerging new concept) considered in unity with the body, as the immanent power or principle of an immanent, that is, materially determined reality. The art of painting in Leonardo is the expression of the "soul" of the world: artistic form dialectically demonstrates the permanence of movement within a universe in perpetual transformation, it represents the constancy of change.

Leonardo's artistic originality in the Renaissance was perspicuously stated by S. J. Freedberg¹⁵: the Florentine artists was able to infuse ideal form, that is, harmonious form, with life, therefore fulfilling the quest of the early Renaissance artists and taking the Renaissance artistic program or project to a new level. In this way, he connected in spirit, and not simply in the exterior elements of form, with the essential dimension and impulse of classical art: the representation of life as an autonomous, self-fulfilling power - a teleological movement towards the full realization of the inner potentialities of all forms of beings is what defines the essential reality of the natural world and within it, in ways proper to the social world of man, defines the reality of the human world modeled after nature in what regards the creative energies necessary to sustain and develop human life. The idea of harmony in Greek art implies a dynamic power and vital expression. Artistic form is in itself the modeling of life energies as both reflection and guide of vital processes.

Leonardo's classicism was therefore a true, inner

15 Freedberg, S.J. (1993) Painting in Italy : 1500-1600

classicism of the spirit and not just of the letter. There is a certain historical irony to the fact that this man without letters, "uomo senza lettere" as he defined himself alluding to his lack of a proper classical education and his lack of, or rather incomplete knowledge of Latin, was the one who was able to recreate in his experience, from his grasp of the challenges and conditions of his time, from his internal resources, as a living reality, the heritage of classical art and of classic wisdom.

In this sense, regarding what many have considered as Leonardo's incomplete artworks, his failures, dispersive activities, prolific and erratic initiatives, scientific errors, unpractical inventions, etc. we can point out that he was essentially, a pioneer, that is, in what matters fundamentally in the creative act (and defines it as such), a man without models. And here lies the originality of Leonardo: the culture of his time, that he absorbed as he could, avidly, persistently, as a true autodidact, was his point of departure towards uncharted domains in the sphere of science, as in the arts.

The Renaissance was a time that clothed itself in the garb of the past in order to project itself into the future. The Renaissance focus on the classical past was indeed a way to forestall, to counter the uncertainties of the present as a critical time, and to overcome it towards the future. By disclosing in his artworks and his manuscripts the depths of his own time, Leonardo connected to the classical times and recreated it for the future. As Freedberg explained, he created the basis for the art of the High Renaissance, that is: the initial stage of the modern developments of Western Art. In this sense, his works were also letters addressed to those who came after him. And to us.

The Renaissance as defined by a modern historian¹⁶ was a time of transitions in which the experience of the decline of the feudal world, among different aspects and effects, could also obscure the potentialities for the future: a time of expectations, "*when the old has died and the new is yet to be born*". The chiaroscuro of Leonardo's art is perhaps a fitting metaphor to the times with both

16 Gilmore, M. P. (1962) *The World of Humanism 1453-1517*

its clarity and somber aspects, hopes and despairs, successes and failures, creations and destructions, and for Leonardo himself within his time, as one that has helped to define it in its complexity, in actuality and for the future.

It is perhaps possible to say that we share in our time, within our specific historical condition, a similar experience of a world in transformation where the old is rapidly passing away and the new is yet to be disclosed in more clear forms. We, the heirs and also the contemporaries of Leonardo da Vinci.

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